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# Report to STAKEHOLDERS

<http://www.edwards.af.mil/penvmng/index-toc.html>

3

Efforts for final cleanup solutions are the focus of the Environmental Restoration Program's fiscal year 2007 budget.

4

Michelle Tucker is the Edwards Air Force Base Housing Restoration Advisory Board member. She brings knowledge, education and voice to the table.



**TEAMWORK** — The air quality program at Edwards AFB works to improve the quality of air. The program consists of government civilian workers and contractors.

## *Lower EMISSIONS support the MISSION*

**A**ir quality at Edwards Air Force Base (AFB) is anything but simple. Its reach stretches beyond looking at page after page of air quality regulations, permit conditions, exemptions from regulations and spreadsheets overflowing with data...the air quality team would even say that it's exciting.

"We think of air quality as cutting edge and fun,"

said Andrea Brewer, an air quality specialist in Environmental Management. "We get to see innovative processes, new equipment or projects, figure out how machines produce emissions and work to help base organizations meet their goals while being environmentally compliant," she said.

See *AIR*, page 6



**CATCH AND RELEASE** — A raccoon, left, was caught at base housing in July and a skunk, right, was caught the following month at a place of business on base hanging out in a recycling bin. Raccoons and skunks are not a common occurrence at Edwards Air Force Base. The raccoon may have been a pet or may have wandered down from surrounding mountain areas. The skunk most likely wandered down from surrounding mountain areas. Both were safely released back into the wild by Environmental Management biologists. If base residents or workers come into contact with wild animals, the best organization to contact is pest control at 661-277-2341.

### Next RAB Meeting

**Nov. 16, 2006**

**5:30 p.m.**

**Lancaster**

**Essex House**

**44916 10th Street West**

**The public is invited.**

If you have a question about the Edwards Air Force Base Environmental Management program, you may address it to Stakeholders Forum, Attn: Gary Hatch or Miriam Horning, 5 East Popson Ave., Edwards AFB, CA 93524-8060, or send e-mail to: [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil)

*Report to Stakeholders* is a publication of the Edwards AFB Environmental Management Division. Its purpose is to inform and educate the public, base workers and residents about continuing Environmental Management efforts at Edwards AFB. It currently has a circulation of 6,000, including about 2,000 subscribers.

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Base Civil Engineer..... James Judkins  
Division Chief, Environmental Management..... Robert Wood  
Branch Chief, Environmental Restoration..... Ai Duong  
Branch Chief, Environmental Conservation..... Gerald Callahan  
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*Report to*  
**STAKEHOLDERS**





# Most of 2007 budget goes into final cleanup solutions

*A 20 percent increase over the past fiscal year allows the Environmental Restoration Program at Edwards Air Force Base to focus on final cleanup at sites using treatment methods selected in the Record of Decision (ROD) process.*

**W**ith a 20 percent increase in funding over last year, the Environmental Restoration Program at Edwards Air Force Base (AFB) will be focusing efforts for fiscal year 2007 on cleanup. That includes projects that have already reached the Proposed Plan and Record of Decision (ROD) phases of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the law governing Superfund cleanups.

Funding in fiscal year 2007 will allow continued efforts to do the things specified in those documents. No new RODs will be funded in the upcoming fiscal year.

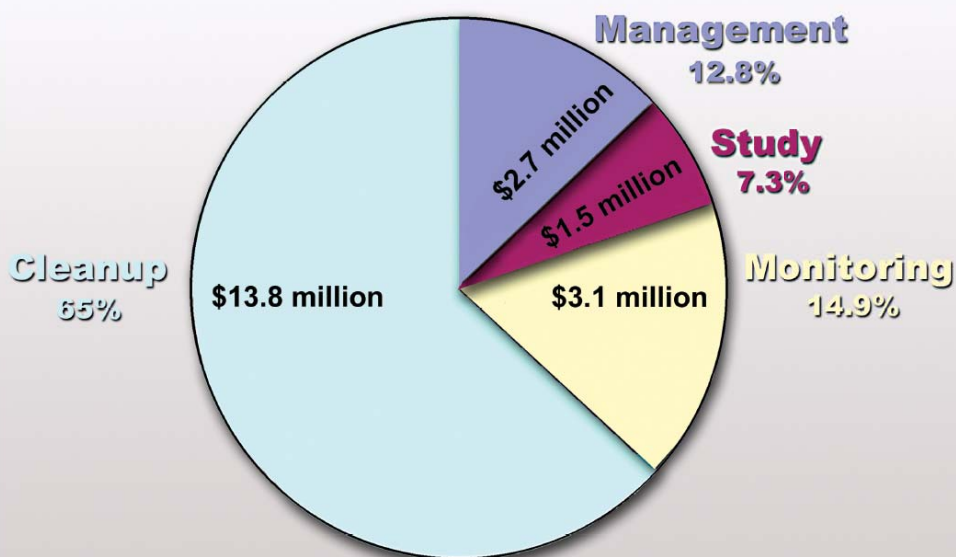
About \$21 million in funding has been allocated to the Restoration Program by the Air Force.

"The majority of the 2007 budget will be focused on cleanup," said Ai Duong, Remedial Project Manager at Edwards. "RODs were funded in 2006. The allocation for 2007 is increased because now we start going through Proposed Plan and ROD phases which give us 15 months to start implementing some final cleanup solutions."

Once a ROD is signed, the base has 15 months to show meaningful progress toward the final remedy selected for the sites in the ROD.

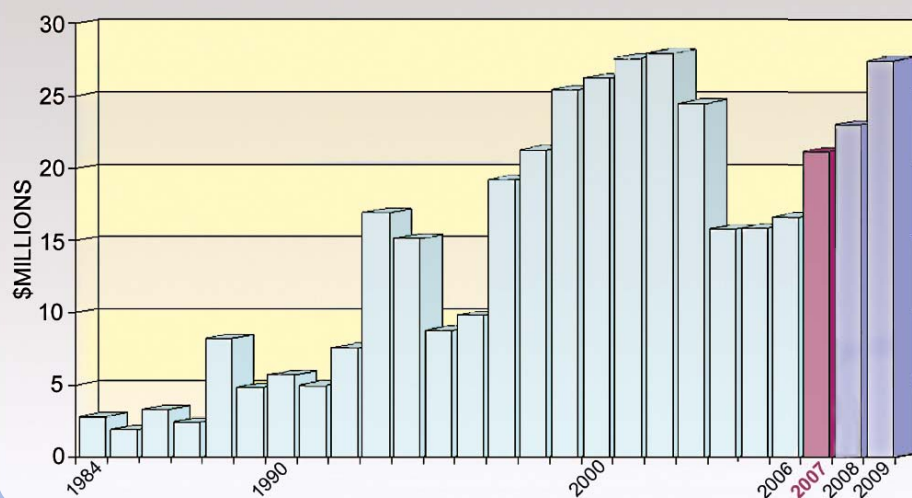
Over the past three years, \$15 million in funding was devoted to investigation of contamination and studies of treatment options — steps taken in preparation for a ROD. In comparison, nearly \$14 million, or 65 percent of the 2007 budget, will be devoted to preferred cleanup methods selected

## 2007 Budget Boosts Cleanup



## Year-to-Year Comparison

Actual 1984 - 2006 to projected 2007 - 2009

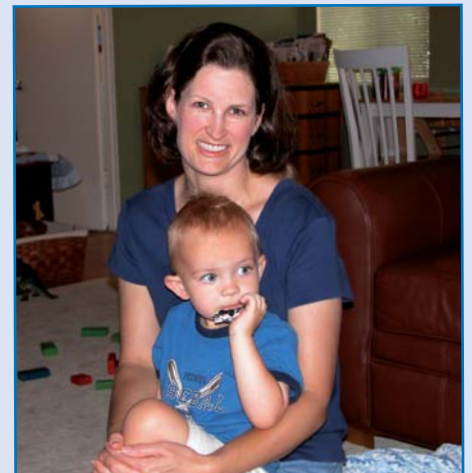


during the Proposed Plan and ROD process.

Projects in Operable Unit 2, South Base, where a ROD is expected to be completed in 2007, are among those to benefit from the increased funding. Sites 5/14, 76 and 86 at South Base are slated to receive nearly \$5 million for *in situ* (in place) treatment and groundwater monitoring. Chemical and

biological *in situ* methods are being considered to treat a large plume of petroleum products at Site 5/14, which encompasses a petroleum, oil and lubricants storage area. Trichloroethene, a solvent, is the main source of contamination being treated at Sites 76 and 86, two Old South Base facilities that were used for engine testing.

# Voice for the community



**ACTIVE** — Michelle Tucker, the newest Base Housing Restoration Advisory Board (RAB) member, left, sits at a RAB meeting in Mojave, Calif. Not only is she an active volunteer participant on base, she is also very active with her children, shown right, two identical twin boys and a daughter.

Less than a month into her position as the new Base Housing Restoration Advisory Board (RAB) representative, Michelle Tucker presented a community issue to the Environmental Restoration Program (ERP) during a training session held in June.

"Living on base, and being a military spouse and mother, I interact with a lot of

other residents," said Tucker, who holds a doctorate degree in kinesiology, which is the scientific study of human movement. "Base residents voiced concerns about the possibility of airborne releases of lead and asbestos at the housing demolition sites. I felt it was important to bring these concerns to the Air Force's attention."

Her question prompted the ERP to is-

sue a fact sheet explaining the demolition process and the steps taken to comply with state and federal regulations. Restoration Branch Chief Ai Duong addressed the concern of Tucker's community.

"Our RAB members represent and speak for their communities. It has always been our practice at Edwards to promote communication to keep the public informed.

If we don't have the answers, we'll try to get them for the members," Duong said.

The RAB is a group that promotes two-way communication between the public and the Air Force about the environmental cleanup at Edwards Air Force Base (AFB). The RAB has public representatives from the off-base communities of Boron, California City, Mojave, North Edwards, Lancaster and Rosamond. It also has representatives from the on-base communities of Main Base, South Base, Base Housing, NASA Dryden and the Air Force Research Laboratory.

Tucker wants to spread the word that she is available to listen to base residents' concerns about the cleanup occurring on base. "That's why I plan to take advantage of the Fall Welcome Events sponsored by the Officer and Enlisted Spouse Clubs," Tucker said. "The most effective form of communication is by word of mouth. The Welcome Events will allow me to introduce myself and let residents know that I am here for them."

Before moving to Edwards AFB, Tucker and her family were stationed at Los Angeles AFB – home of the Space and Missile Systems Center – the Air Force's premier space acquisition center; Travis AFB, Calif.; and the Pentagon in Washington, D.C. Traveling is nothing new for Tucker, whose father worked for Continental Airlines. She grew up in Palos Verdes, Calif., and College Station, Texas. During the summers, Tucker visited Hawaii and scuba dived, an activity she was certified in by age 14.

Tucker is a part-time biology professor at the Antelope Valley College in Lancaster, Calif. Tucker attended college at Pepperdine University in Malibu, Calif., and received her bachelor of science in biology before moving to the University of Southern California in Los Angeles to complete her master's and doctorate degrees in sports medicine and kinesiology, respectively. Tucker received full scholarships to earn all three degrees. She played soccer at Pepperdine as part of her scholarship; the rest relied on her success in the classroom.

After receiving her doctorate's degree, Tucker worked as a chemist at Bio-Rad

Laboratories, Inc., a job she says she enjoyed immensely. A California-based biotechnology firm, Bio-Rad provides tools, such as equipment to test for mad-cow disease, and services to the clinical diagnostics and life science research markets.

During her two years at Bio-Rad, Tucker advanced from chemist to quality control supervisor. She coordinated with various people to establish product specifications, worked with the research and development department to get each product from the

share the same genes. I expected them to look and behave identically. But they are unique, with individual temperaments and different likes and dislikes." Tucker is a member of the Antelope Valley Mother of Twins Club, an organization that meets to discuss child safety and issues related to raising twins.

Tucker's husband Aaron, a Captain in the Air Force, is supportive of his wife's involvement with the RAB. "Michelle is smart and very talented," said Aaron, who

works on cargo aircraft as an engineer with the 418th Flight Test Squadron. "She has a lot to contribute and I'm happy to help out when she needs to do her volunteer duties."

The time commitment to be a RAB member enables Tucker to juggle raising a family and being a public representative. "I couldn't participate in some volunteer activities because of the amount of time I needed to commit outside of the home. As a representative, I can talk to residents on the phone, in person or through

e-mail and still be with my children.

Another bonus of being a RAB member is that I get to learn about the latest cleanup technologies. Some cleanup methods rely on chemical reactions, a subject I'm really interested in.

"Most importantly, this position gives me a chance to talk to the decision makers face-to-face. I want to be involved in making the environment safer for my children."

Tucker also wants to be a good public representative for base residents. "I'm grateful to live on base," she said. "There's a wonderful sense of community. You bump into people at squadron events, the commissary or movie theatre, and you get to know one another. I hope others will feel comfortable talking to me or asking questions if they are curious or concerned. That's what I'm here for."

RTS

*"Base residents voiced concerns about the possibility of airborne releases of lead and asbestos at the housing demolition sites. I felt it was important to bring these concerns to the Air Force's attention."*

Michelle Tucker  
Military Housing  
Restoration Advisory Board

tabletop to mass production without losing quality and tested products to ensure they met specifications and were working efficiently and accurately.

"On a day-to-day basis I would troubleshoot and find solutions for a variety of issues. That's the sort of activity I miss. There's a feeling of accomplishment in seeing a product on the market and knowing you had a hand in getting it there," Tucker added.

For now, she is content to stay at home raising her daughter and two sons. "I always wanted three children. I just wasn't expecting to have them so close together. It was a challenge for me to make the transition from working woman to stay-at-home mom. But the journey has been worth it."

The decision to stay at home was made when she and her family were moving to Washington, D.C., and she found out she was pregnant with twins. Her daughter is 4 years old and her identical twin sons are 2 years old.

"Being a mother of identical twins has made me question a few of my own scientific beliefs," Tucker said. "Alex and Andrew





**EMISSIONS** — The air quality team calculates estimated emissions from material usage data provided by base organizations. For instance, for the F-35 tests, like the one shown above, material usage data like the type of fuel, amount of fuel and length of time the aircraft is tested is recorded.

## AIR From page 1

On the face of the program, the purpose is to ensure that base operations comply with the U.S. Environmental Protection Agency, state and three local air quality districts' regulations, but the air quality program goes about ensuring this with care.

At Edwards AFB, the air quality program staff monitors stationary sources of emissions such as internal combustion engines (generators, rocket test stands), external combustion engines (boilers) and spray paint booths, among others. The program also monitors mobile emissions sources such as motor vehicles, construction equipment and aircraft.

"Our program works on a much larger scale than other programs at Environmental Management because well...everyone breathes the air!" said air quality coordinator Elizabeth Rehoreg, "That is why we get everyone involved in the process."

Since so many operations emit air pollutants, visible or not, the air quality program specialists review and analyze a variety of projects from aircraft testing to supporting events like the Edwards AFB Air Show.

The air quality program specialists rely heavily on individual base organizations for emissions monitoring. These organizations record how many operations occurred in a given amount of time and what materials were used during that period. These records include how many gallons of fuel were used to power an emergency generator, how long the generator ran and what operation it supported. The specialists train organizations to track the material usage data while explaining why the data needs to be collected.

After the data is recorded by base organizations, it is given to the air quality team where estimated emissions are calculated and compliance is demonstrated to regulatory agencies. Throughout the year, the air quality pro-

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*"We don't put up roadblocks, we help form pathways. We're here to support the mission."*

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Andrea Brewer  
Air Quality Specialist

gram specialists prepare compliance reports and permit applications for federal, state and local regulatory agencies.

One way the air quality program works with base organizations is through the Environmental Impact Analysis Process, or EIAP. Before a project begins, EIAP specialists evaluate the environmental impacts, including natural and cultural resources and air and water quality. When a customer submits a project through EIAP, the air quality team notifies EIAP specialists of possible air issues and attempts to proactively find solutions that will benefit the base and the specific project.

For this reason, the air quality team encourages base organizations to share their projects and new equipment ideas with them. The air quality team maintains a good working relationship with local regulators and equipment manufacturers, which gives the team the ability to help organizations find innovative answers to permitting or compliance questions and select more efficient equipment.

"We analyze the project details and work with the customer to figure out what type of permits the project will need or what permit exemptions exist for that type of project or piece of equipment," said air quality specialist Madeline Almodovar.

"Sometimes this requires analyzing a piece of equipment to figure out how it works or how it might be modified to meet regulatory standards. We help find a solution that works for everyone," said Brewer.

The air quality team balances air quality permitting, data collection, emission calculations and regulatory compliance on



**CALCULATE DATA** — Air Quality engineers record data from this stationary engine for the amount of time it ran and for what operation.

a daily basis. This is combined with input from the customer allowing for a successful planning and decision-making process.

"Often, base organizations think they will not need a permit or fear that the air quality process will slow down their project. But once there is a problem, it is harder to fix than if it would have been tackled in the beginning," said Rehoreg.

Because lower emission rates can increase the

number and scale of projects brought to Edwards AFB, the work of the air quality team is a crucial step in making a project a success while minimizing environmental impacts.

"We don't put up roadblocks," said Brewer, "We help form pathways. We're here to support the mission."

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Published data and documents relating to the Environmental Restoration Program are available for public review in information repositories at four locations. The current information repositories are located in the cities of Boron, Lancaster and Rosamond, as well as Edwards AFB. They are updated when new documents are released.

If you have any questions about information in the repositories, please contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or through e-mail at 95abw.pae@edwards.af.mil.

**Location Days and Hours of Operation****Edwards AFB Library**

5 W. Yeager Blvd.  
 Building 2665  
 Edwards AFB, Calif.  
 (661) 275-2665

Mon-Thurs	9:30 a.m. - 7 p.m.
Fri	9:30 a.m. - 6 p.m.
Sat & Sun	10:30 a.m. - 6 p.m.

**Kern County Public Library**

Wanda Kirk Branch  
 3611 Rosamond Blvd.  
 Rosamond, Calif.  
 (661) 256-3236

Tue & Wed	Noon - 8 p.m.
Thurs-Sat	10 a.m. - 6 p.m.

**Los Angeles County Public Library**

601 W. Lancaster Blvd.  
 Lancaster, Calif.  
 (661) 948-5029

Mon-Wed	10 a.m. - 8 p.m.
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Sat	11 a.m. - 5 p.m.

**Col. Vernon P. Saxon, Jr.**

**Aerospace Museum**  
 26962 Twenty Mule Team Road  
 Boron, Calif.  
 (760) 762-6600

Mon-Sun	10 a.m. - 4 p.m.
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